Notebook Series -- Notebooks by Edison and Other Experimenters
Disc Plating Experiments
Notebook, N-20-07-10

This notebook was used during July-August 1920 by Edison, Walter N. Archer, Frank Detlef, Jr., Howard F. Redford, and possibly other experimenters. The entries pertain to the plating processes involved in the manufacture of disc records. At the beginning of the book are tabular reports by Archer of molds plated in various baths with information on the date and time, specific gravity, volts, amps, and other conditions during plating. Also included is a series of numbered experiments by Archer on different methods of handling the molds prior to plating, such as placing them in the bath both wet and dry and with the current both on and off. There are also a few experiments to determine how many molds can be made from one female. Several pages of instructions by Edison have been inserted into the book. The front cover is labeled "July 10, 20-To Aug 19-20-" and "Disc Record" and is marked "Nickel Bath Exper." The pages are unnumbered, and several pages have been removed from the book. Approximately 100 pages have been used.

Nickel Bath No 1

Copper face — run 2 minutes before current put on

JULY 10 AM	Sp Gr	Volts	Amp	Temp	Total	
10.00	1280	9.5	8.5	89		
11	1280	9.5	9	92	9	
12 PM	1280	9.5	9	92	18	
1.00	1280	9.5	9	95	27	
2.00	1280	9.5	9	100	36	
3.00	1280	9.5	10	102	46	
4 —	1280	9.5	10	102	56	
5	1280	9.5	10	98	66	
6	1280	9.5	10	98	76	
7	1280	9.5	10	105	86	Out

Transferred in No 4 Ni Copper Bath

Nickel Bath No 2

Nickel face

JULY 10	Sln	Volts	Amp	Amp	Total	
AM	1280	9-5	11	89		
10.00	1280	9-5	12	92	12	
11	1280	9-5	12	92	24	
12	1280	9-5	12	95	36	
PM 1.00	1280	9-5	12	97	48	
2	1280	9-5	12	99	60	
3	1280	9-5	13	101	73	
4	1280	9.5	13	100	86	
5	1280	9.5	13	98	99	
6	1280	9.5	13	98	112	
7	1280	9-5	13	105	125	Out

Transferred in No 7 Copper Bath

When No 1 Mould was put in had two dirts on face

Nickel Bath No 1

run to minutes before Current Cut on

JULY 10 PM	Sp Gr	Volts	Amp	Amp	Total
9.00	1265	9-5	11	98	
10.00	1265	9-5	11	99	11
11.00	1265	9-5	11	99	22
12.00	1265	9-5	11	99	33
AM	July	10			
1.00	1265	9-5	11	99	44
2.00	1265	9-5	11	99	55
3.00	1265	9-5	11	99	66
4.00	1265	9-5	10	99	76
5.00	1270	9-5	10	99	86
6.00	1270	9-5	9-5	99	95
7.00	1270	9-5	9-5	99	105
8.00	1270	9-5	10	100	115
9.00	1270	9-5	10	100	125
10.00	1270	9-5	10	100	135
11	1270	9-5	10	100	145
12	1270	9-5	10	100	155

Out

Transfer to #5 Bath 8 p/per
Put in dry at 3.6 Amp. ~~9~~ notch one minute, then full current on.

No 2 Nickel Bath

run 2 minutes before current put on

JULY 10 PM	Ohm	Volts	Amps	Amp	Total
9.00	1265	9-5	13	95	
10.00	1265	9-5	13	95	13
11	1265	9-5	13	95	26
12	1265	9-5	13	95	39
AM	July	10			
1.00	1265	9-5	13	95	52
2.00	1265	9-5	13	96	65
3.00	1265	9-5	13	96	78
4.00	1265	9-5	12-5	96	90
5.00	1270	9-5	13	98	103
6.00	1270	9-5	13	99	116
7.00	1270	9-5	13	99	129
8.00	1270	9-5	12-5	99	142
9.00	1270	9-5	12-5	100	154
10.00	1270	9-5	12-5	100	167
11.00	1270	9-5	12-5	100	179
12.00	1270	9-5	12-5	100	192

$13 \overline{)192}$ = 14 (13 × 14 = 182)

Out

Transfer to #3 Bath Copper Put in wet 1 min. at 3.6 Amps. 9 to 10 take off full current

No 2 Nickel Mold put in cleaning Bath for 20 seconds put in 8-21-pr 2 ~~[illegible]~~

No 2 Nickel Bath

JULY 11 PM	Sln	Volts	Amp	Temp	Total	
5:00	1265	9-5	12	90		
6:00	1265	9-5	12	92	12	
7	1265	9-5	12-5	93	24	
8	1270	9-5	12-5	93	37	Out
9						
10						

16 | 160 | 10.

Start July 12, 20. at 1. A.M.
Finish " 12 " " 5. P.M.
Total Amps 160
" hours 16
Average Amps 10.

Nickel Bath No 11

JULY 12 AM	Sign	Volts	Amps	Amps	Total	
1.00	1265	9-5	10	90		
2.00	1265	9-5	11	90	11	
3.00	1265	9-5	11	90	22	
4.00	1265	9-5	10-5	94	32	
5.00	1270	9-5	10-5	96	43	
6.00	1270	9-5	9-5	96	52	
7.00	1270	9-5	9-5	98	62	
8.00	1270	9-5	9-5	100	71	
9	1275	9.5	9.	100	81	
10	1275	9.5	9.5	99	90	
11	1280	9.5	9.5	99	100	
12	1280	9.5	10	100	110	
1 PM	1280	9.5	10	100	120	
2	1280	9.5	10	105	130	
3	1280	9.5	10	103	140	
4	1280	9.5	10	100	150	Transfer to #2 Copper bath.
5 PM	1280	9.5	10	100	160	1 Min at 2.3 amp - 6 notch then full current on.
				Out		

No 2 Nickel Bath

JULY 12

AM	Sbr	Volts	Amp	Temp	Total	
1.00	1265	9-5	12	90		
2.00	1265	9-5	12	91	12	
3.00	1265	9-5	12	91	24	
4.00	1265	9-5	12	93	36	
5.00	1270	9-5	13	96	49	
6.00	1270	9-5	13	96	62	
7.00	1270	9-5	13	96	75	
8.00	1270	9-5	13	96	88	
9-	1275	9-5	13	102	101	
10	1275	9.5	13	100	114	
11	1280	9.5	13	100	127	
12	1280	9.5	13	100	140	
1	1280	9.5	13	100	153	
2	1280	9.5	13	100	166	
3	1280	9.5	12.5	103	178	
4	1280	9.5	13	98	191	
5	1280	9.5	13	104	204	Cont
6	1280	9.5	13	104	217	Transfered to #4 Bath. Cu. 1 minute at 2.3 Amps 6th notch, then full current.
7	1280	9-5	13	—		

98

7) 1676 (1.5 3.1 149

15 12.5

7) 217 (31

15 1.43

7) 2360 (50

130 119

Revolve 2-Minutes Nickel Bath
Put in dry

17) 171 (10.
17

Total Amps. 171.
" hours. 17
Average Amps. 10.

No 1 Nickel Bath

JULY Start July 12, 20 at 6.30 A.M.

12 PM	Lbs	Volts	Amps	Temp	Total	
6-30	1270	9-5	11	99		
7-30	1270	9-5	11	98	11	
8-30	1270	9-5	11	98	22	
9.30	1270	9.5	10.5	98	33	
10.30	1270	9.5	11	103	44	
11.30	1270	9.5	11	98	55	
12.30	1270	9.5	11	98	66	
1.30 PM	1270	9.5	11	98	77	
	July 13, 20.					
2.30	1270	9.5	10	98	87	
3.30	1270	9.5	9-5	97	97	
4.30	1270	9.5	9-5	97	106	
5.30	1270	9.5	9-5	97	116	
6.30	1270	9.5	9-5	97	125	
7.30	1270	9.5	9	96	134	
8.30	1275	9.5	9	97	143	
9.30	1275	9.5	9.5	97	153	
10.30	1275	9.5	9.5	101	162	Transfer to #8 Cu bath
11.30	1275	9.5	9.5	100	171	July 13, 20. Pt. in wet Cu Bath Switch On

Put in dry
Revolve 2 min. in Bath
full current

15.5) 191 (12.3
155
360
310
500
465

Start July 12, 20. at 6 30 PM
Finish " 13, 20 " 10. AM
Total Amps 191
" hours 15½
Average Amps. 12.3

Nickel Bath No 2

JULY Started July. 12, 20 at 6 30 P.M.

12 PM	Ohm	Volts	Amp	Temp	Total
6-30	1270	9-5	12	95	
7-30	1270	9-5	12-5	97	12
8-30	1270	9-5	12-5	97	25
9-30	1270	9-5	12.5	95	37
10 30	1270	9.5	13.	103	50
11 30	1270	9.5	13-5	94	64
12 30	1270	9.5	13-5	94	77
	July				
1.30	1270	9.5	12-5	96	90
2.30	1270	9.5	12	95	102
3.30	1270	9.5	12	95	114
4 30	1270	9.5	12	95	126
5.30	1270	9.5	12	95	138
6.30	1270	9.5	12	95	150
7.30	1270	9.5	11.5	94	161
8 30	1275	9.5	12	96	173
9 30	1275	9.5	12	91	185
10	1275	9.5	12	91	191

12
16) 191
16
31

Out
Transfer to
#7 Cu bath
July. 13, 20,

~~#1 Mi Batch~~

~~Started July 13, 20 – 12 – Noon~~

Time	Sp Gr	Volts	~~Amps~~	~~Temp~~	Total

Revolve 2 minutes in Ni bath no current then full current on.

8) 95 | 11.8
88
70

Start July 13, 20 at 2.30 PM.
Finish " 13, " " 10 PM.
Total Amps. 95
" hours. 8
Average Amps. 11.8

2 Ni Bath.

Started July 13, 20- 2 30 PM.

Time	Sp Gr	Volts	Amps	Temp	Total	
2.30 PM	1280	9.5	12.5	100		
3 30	1280	9.5	12.0	97	12	
4 30	1280	9.5	12.	99	24	
5 30	1280	9.5	12	101	36	added acetic acid
6 30	1280	9.5	12	100	48	
7-30	1280	9.5	12	100	60	
8-30	1280	9.5	11.5	99	72	
9-30	1280	9.5	11.5	98	83	
10 PM	1280	9.5	12	98	95	Cent.

Hung on rack after common water wash + rinse distill and dried. Transfer to ~~#~~ 3 Copper bath.

Nickel No 1 Bath

Started July 13. at 12PM

PM	SP.GR.	VOLTS	AMP.	TEMP	TOTAL
12.00	1260	9.5	10	95	
AM	July	14			
1.00	1260	9.5	10.5	95	10
2.00	1260	9.5	11	97	21
3.00	1260	9.5	11	97	32
4.00	1260	9.5	11	96	43
5.00	1260	9.5	11	96	54
6.00	1260	9.5	11	97	64
7.00	1260	9.5	10	97	74
8.00	1260	9.5	9.5	96	84
9 —	1265	9.5	9.	96	93
10 —	1270	9.5	9.5	94	98
11 —	1270	9.5	9.	98	107

Transfer to
#6 Copper bath
Put in wet

11) 107 (9.7
99
8.0

Total amps 107
" hours 11
Average amps 9.7

Revolve 2 hrs in Ni bath no current

12 | 143 | 12.

Total Amps 143
" hours 12
Average amps 12

Nickel No 2 Bath
Started July 13 at 12 PM

PM	SP. GR	VOLTS	AMP.	TEMP	TOTAL	
12.00	1260	9.5	12	94		
AM.	July	14				
1.00	1260	9.5	12	94	12	
2.00	1260	9.5	12	96	24	
3.00	1260	9.5	12	96	36	
4.00	1260	9.5	12	95	48	
5.00	1260	9.5	12	95	60	
6.00	1260	9.5	12	95	72	
7.00	1260	9.5	12	95	84	
8.00	1260	9.5	11.5	95	95	
9 —	1265	9.5	11.5	95	107	
10 —	1270	9.5	12	95	119	
11 —	1270	9.5	12	97	131	
12	1270	9.5	12	97	143	Transfer to #5 Copper bath Put in dry

20 seconds in Electric Cleaner.
20 " 8-4
Put in dry
2 minutes revolved, then current

1 - Nickel Bath

Started July 14, 20 at 1.PM

Time	S. G.	Volts	Amps	Temp.	Total	
1.PM	1270	9.5	9.5	99		
2	1265	9.5	10	104	10	
3	1265	9.5	10	104	20	
4	1265	9.5	10	105	30	added acid
5	1265	9.5	10	106	40	acetic
					50	

Transfer to #4 Copper bath.

4) 51 (12.7

Total amps = 51
" hours = 4
Average amps = 12.7

#2 Nickel Bath.

Started July 14, 20 @ 1 P.M.

Time	S.G.	Volts	Amps	Temp.	Total	
1 P.M.	1.270	9.5	12	102		
2 —	1265	9.5	12.5	102	12	
3 —	1265	9.5	12.5	102	25	
4 —	1265	9.5	13	103	38	added acid acetic.
5 —	1265	9.5	13	104	51	

Transfer to #2 Copper bath.

When #2 Ni disc. is out put more Ni chot in anode chamber.

AR

marked 48 corrected to 51

64X

Ni face disc
Put in Ni bath full current dry
When put in Copper bath
put in dry, full current on.

Total amps 97 Ni bath.

10) 97 | 9.7

Total amps = 97
" hours = 10
Average amps = 9.7

1 Ni Bath
Started July 14, 20. @ 12 PM.

Time	Sp gr	Volts	Amps	Temp	Total	
12.00	1270	9.5	10	95		
1 M	July	15				
1.00	1270	9.5	10	95	10	
2.00	1270	9.5	10	95	20	
3.00	1270	9.5	10	95	30	
4.00	1270	9.5	10	98	40	
5.00	1270	9.5	10	98	50	
6.00	1270	9.5	9.5	100	60	
7.00	1270	9.5	9.5	100	70	
8.00	1270	9.5	9.	98	77	Showed blister on disc
9 —	1280	9.5	9.5	98	88	
10	1280	9.5	9.	98	97	Out

~~Transfer to # Copper bath, with full current, dry~~

Showed blister at 8 30 PM July 15, 20.
Mr Edison Stripped this disc.

Ni face disc.

Put in Ni bath full current, wet

When put in copper bath, put in dry full current on!

Total Amps 128 Ni bath,

10 | 128 | 12.8

Total Amps 128
" hours 10
Average Amps 12.8

#2 Ni Bath

Started July 14, 20 – @ 12 P.M.

PM	SPGR	VOLTS	AMP	TEMP	TOTAL
12.00	1270	9.5	12	92	
AM	July 13				
1.00	1270	9.5	12	94	12
2.00	[illegible]	9.5	[illegible]	[illegible]	[illegible]
3.00	1270	9.5	12	94	[illegible]
4.00	[illegible]	9.5	[illegible]	97	48
5.00	1270	9.5	[illegible]	[illegible]	[illegible]
6.00	1270	9.5	12	[illegible]	[illegible]
7.00	1270	9.5	12	[illegible]	[illegible]
8.00	1270	9.5	12	95	108
9–	1280	9.5	13	96	115
10	1280	9.5	13	96	128

~~Out~~ ~~transfer to~~ ~~copper bath~~ with ~~full current~~ full dry

Mr Edison stopped this day.

Ni face disc.

Electric Cleaner. 30 seconds.

8-4. one minute

Put in Ni Bath dry
Full current on.

#1 shows blisters after 20 minutes

#1 Ni Bath

Started July 15, 20 - 11 30 AM.

Time	Sp. Gr	Volts	Amps	Temp	Total	
11 30 AM	1280	9.5	10	88		
12 30	1280	9.5	10	89	10	
1 30 PM	1280	9.5	10	90	20	
2 30	1280	9.5	10		30	Out

Elect. Clean 30 sec.
8-4 60 "
Very in Bath full current on.

Taken out to try stripping from blisters

Ni face disc.

Electric Cleaner 30 seconds

8-4 One minute

Put in Ni Bath wet
full current on

#2 Ni Bath

Started July 15 20 - 11 30 AM.

Time	Sp Gr	Volts	Amps	Tank	Total	
11 30 AM	1280	9.5	12	88		
12 30	1280	9.5	12	89	12	
1 30 PM	1280	9.5	12	90	24	
2 30	1280	9.5	12	9.0	36	Out
						Taken out to try stripping from blisters

Ni face Hise.
Treated Electric 1/2 Min Clean
" P-4 1 Min

Wash in whirler, then rinse in distilled water, and dry in whirler.
Put in Ni bath dry.
Revolve 1 Min no current
Then full current (or V.)

Washed and rinsed well before drying to put in Ni bath

7/70 | 10

Total Amps 70
" Hours 7
Average Amp 10

1 Ni Bath

Start July 15, 20—

Time	Sp. Gr	Volts	Amp	Temp	Total	P.M.
3 P.M.	1280	9.5	10	90		
4—	1280	9.5	11	90	11	
5—	1280	9.5	10	93	21	
6—	1280	9-5	10	100	31	
7—	1280	9-5	10	100	41	
8—	1280	9-5	10	105	51	
9—	1280	9-5	9-5	103	60	
10—	1280	9-5	9-5	103	70	

Transfer to #7 Copper Bath July 15

Ni face disc.
Treated Electric Cleaner 1/2 min.
" 8-4 1 minute

Wash in whirler, rinse in distilled water
Put in wet Ni bath.
Revolve 1 minute no current
Then full current on.

Washed and rinsed well, before putting into Ni bath

7/84/12 -

Total Amps 84
hours 7
Average Amps 12.-

2 Ni Bath

Started July 15, 20 — P.M.

Time	Sp Gr	Volts	Amps	Temp	Total
3 P.M.	1280	9.5	13.	90	
4 —	1280	9.5	12	90	12
5 —	1280	9.5	12	94	24
6 —	1280	9-5	12	96	36
7 —	1280	9-5	12	99	48
8 —	1280	9-5	12	99	60
9 —	1280	9-5	12	100	72
10	1280	9-5	12	112	84

Out

~~70 75 Cont~~

Transferred to # 8 Copperbath July 15 20.

Put in dry
Revolve 2 minutes
Put full current on, after running 30 minutes open circuit for 20 minutes to let bath run without current, then close circuit and let run 65 or more amps

11.5) 116 (10.

Total amps 116
" hours 11½
Average amp 10.—

#1 Ni Bath
Started July 15, 20 — at 10.55 PM.

Time	Sp gr	Volts	Amp	Temp	Total	
1055						
1115	1280	9.5	10-5	98		½ hour
1135	1280	9.5	10-5	98	10	
1235	1280	9.5	10-5	98	21	
1214		July 16, 20				
135 AM	1280	9.5	10-5	98	31	
2.35	1280	9.5	10-5	97	42	
3.35	1280	9.5	10	100	52	
4.35	1280	9.5	9-5	100	[illegible]	
5.35	1280	9.5	9-5	100	[illegible]	
6.30	1280	[illegible]	[illegible]	[illegible]	[illegible]	
7.35	1280	9.5	9	95	89	
8.35	1280	9.5	8-5	95	99	
935	1270	9.5	10.	92	107	
1040	1270	9.5	9	92	116	Cut

Transfer to #2 Copper Bath.
July 16, 20.
Put in dry Cu
full current on

Put in wet
Revolve 2 min. and
put full current on,
after running 30 minutes open
circuit for 20 minutes to let
run without current.
Then close circuit and
let run 65 or more Amps

11.5) 137 (11.9
115
22
115
105
105

Total Amp 20 137
" hours 11½
Average Amps 11.9

#2 Ni Bath
Started July 15, 20 at 1038 P.M.

Time	Sp. Gr	Volts	Amps	Temp	Total
1038					
1108	1280	9.5	11	98	½
1128	1280	9.5	11-5	96	[illegible]
1228	1280	9.5	11-5	92	[illegible]
P.M.	[illegible]	[illegible]	[illegible]	[illegible]	
1.28	1280	9.5	11-5	[illegible]	[illegible]
2.28	1280	9.5	11-5	[illegible]	26
3.28	1280	9.5	11-5	[illegible]	37
4.28	1280	9.5	11-5	90	58
5.28	1280	9.5	11-5	[illegible]	[illegible]
6.20	1280	9.5	11-5	93	[illegible]
7.20	1280	[illegible]	12	[illegible]	[illegible]
8.20	1280	9.5	[illegible]	[illegible]	[illegible]
9.20	1280	9.5	12	92	125
10.20	1280		12	92	137
1040	"	95			

Out
~~[illegible]~~
Transfer to #3 Copper bath July 16, 20.
Put in dry Cu full current on

2-Ni faced females
Considerably rounded edges
Electro Clean 30 sec
8-4 - one Minute
Put in Ni Bath dry
Revolve 2 minutes, then put current on
Run to 7.5 Amps

105 | 105 | 10

Total Amps 105
in hours 10½
Average Amps 10.

#1 Ni Bath

Started July 16, 20. @ 12 30 AM

Time	Gallon	Volts	Amps	Temp	Total	
12 30 AM	1270	9.5	9.5	95		
1 30	1270	9.5	10.	93	10	Shows blisters.
2 30	1270	9.5	10.	93	20	at 1 30 AM. 2 Rings
3 30	1270	9.5	10.	97	30	
4 30	1270	9.5	10	97	40	Note if any
5 30	1270	9.5	10	95	50	knobs appear
6 30	1275	9.5	10	96	60	on track.
7 30	1275	9.5	10	96	70	
8 30	1275	9.5	10	98	80	
9 30	1275	9.5	10	99	90	
10 30	1275	9.5	10	99	100	
11-	1275	9.5	10	99	105	Out

Transfer to
#6 Rack on Bath.
July 16, 20.

Same as #1 Ni Batt
of July 16, 20 @ 12 30 AM

105 | 1240 | 11.8
105
190
105
850
840

Total Amp/oz 1240
11 hours 10½
Average Amp/oz 11.8

#2 Ni Batt

Started July 16, 20 @ 12 30 AM.

Time	Lb	Volts	Amps	Temp	Total	
12 30 AM	1270	9.5	12.5	95		
1 30	1270	9.5	12	92	12	
2 30	1270	9.5	12	93	24	
3 30	1270	9.5	11.	95	35	note when
4 30	1270	9.5	12	95	47	any knots appear
5 30	1270	9.5	11.5	97	58	or stress
6 30	1275	9.5	12	97	70	
7 30	1275	9.5	12	95	82	
8 30	1275	9.5	12	97	94	
9 30	1275	9.5	12	97	106	
10 30	1275	9.5	12	98	118	
11	1275	9.5	12	99	124	Cut

Rounded Edge Disc
Put in dry, 3 Minutes Resolve,
then full current on

#1 - Ni Bath

Started Jan 16 20 at 11.30 PM.

Time	Spec	Volts	Amps	Temp	Total
11 30 AM	1275	9.5	9.5	97	
12 30	1275	9.5	9	92	9
		July 17, 20.			
1 PM.	1275	9.5	9.	92	18
2 30	1275	9.5	9	90	27
3 30	1275	9.5	9	90	36
4 30	1275	9.5	9.5	90	45
5 30	1275	9.5	9.5	90	55
6 30	1275	9.5	9.5	92	64
7 30	1275	9.5	9.	91	73
8 30	1275	9.5	9.	93	82
9 30	1275	9.5	9.	93	91
10 30	1275	9.5	9.	94	100
11 AM	1275	9.5	9	94	105

Transferred to
#4 Ni Bath
July 17, 20.
105 amps
Ni Plated

Duplicate of #1 Ni Batter of July 16, 20, at 1130 PM.

#2 Ni Batter

~~Started~~ July 16, 20 @ 1130 PM.

Time	Sp. Gr	Volts	Amps	Temp	Total	
1130	1275	9.5	12	93		
1230 PM	1275	9.5	11.5	92	12	
		July 17, 20				
130 PM	1275	9.5	12	90	24	
230	1275	9.5	12	90	36	
330	1275	9.5	12	90	48	
430	1275	9.5	12	92	60	
530	1275	9.5	12	90	72	
630	1275	9.5	11	90	83	
730	1275	9.5	12	90	95	
830	1275	9.5	12	92	107	
930	1275	9.5	10.5	92	117	Transfer to
1030	1275	9.5	10.5	92	128	#7 Copper
11	1275	9.5	10.5	93	133	Batt July 17, 20
						133 Amp hr
						plated

Revolve 60 min. Ni Bath dry then full current on.

10 | 9.8 | 9.8

Total Amp/hr 98
" hours 10
Average Amp/hr 9.8

Ni Bath

Started July 17 20 @ 12 45 P.M.

Time	Sp Gr	Volts	Amp	Temp	Total	
11 45 / 12 45						
12 45 P.M.	1280	9.5	10	91		after 10 min
1.45	1280	9.5	10.5	94	10	copper color
2.45	1280	9.5	10.5	94	21	on Ni disc
3.45	1280	9.5	10.5	94	31	no current
4.45	1280	9-5	10-5	100	42	
5-45	1280	9-5	10-	100	52	note how stripped
6-45	1280	9-5	10	100	62	
7-45	1280	9-5	9	95	71	
8-45	1280	9-5	9	95	80	
9-45	1280	9-5	9	95	89	
11-45 P.M.	1280	9-5	9	95	98	Amp

Out

Transfer to # 2 Copper bath
98 Amp/hr plate
July 17 20
at 10 45 P.M.

Duplicate of #1 Bath
Except screen in #2 Bath Ni

77/11

Total Amp 77
" hours 7
" Ahours 11

#2 Ni Bath

Started July 17, 20 @ 110 P.M.

Time 12.10 110	Sp Gr	Volts	Amps	Temp	Total	
1PM	1280	9.5	11	90		after 10 min copper color on Ni disc
2.00	1280	9.5	11	90	11	
3.00	1280	9.5	11	90	22	no Current
4.00	1280	9.5	11	90	33	
5.00	1280	9-5	11	97	44	note how stripped
6.00	1280	9-5	11	90	55	
7.00	1280	9-5	11	90	66	Cracked on edge of mould noticed about 4.00 Pm
8.00	1280	9-5	11	90	77	

Out

Transfer to #8 Bath July 17-20 77 Amp

Rounded edge Disc put in dry
3 minutes Revolve then full
Current on

½ minute in Cleaning Bath
1 " in 8-4
washed in hydrant water
rinsed in Distilled
put in dry then put
in nickel bath for 3 minutes
with Current off

10)85(8.5

Total Amps 85
" hours 10
Average Amps 8.5

1 Ni Bath

started July 18-20

Time	Lbs	Volts	Amps	Amps	Total	
12.00	1280	9-5	9	89		
1.00 AM	1280	9-5	9	91	9	
2.00	1280	9-5	9	93	18	Mould started
3.00	1280	9-5	9	93	27	to Break a
4.00	1280	9-5	8-5	94	35	2-30 AM.
5.00	1280	9.5	8-5	94	44	
6.00	1280	9.5	8.5	93	52	
7.00	1280	9.5	8.5	93	61	
8.00	1280	9.5	8-5	93	69	
9.00	1280	9.5	8-5	93	77	
10.00	1280	9-5	8-5	93	85	Amps

Out

stopped at 10.00 AM on account of cracked Disc

M G

Rounded edge Disc
Put in dry 3 minutes Revolve
Then full current on

same as No 1

10) 107 (10.7

Total Amps = 107
" hours = 10
Average Amps = 10.7

No 2 Ni Bath

started July-18 20

Time	Hgr	Volts	Amp	Temp	Total
12.00	12.80	9-5	11-5	88	
A-M 1.00	12.80	9-5	11	89	11
2:00	1280	9-5	11	89	22
3.00	1280	9.5	11	89	33 Mould started
4.00	1280	9.5	11	90	44 to break at 3-15
5.00	1280	9.5	11	90	55
6.00	1280	9.5	10-5	90	65
7.00	1280	9.5	10-5	90	76
8.00	1280	9.5	10-5	90	86
9.00	1280	9.5	10-5	90	97
10.00	1280	9-5	10-5	90	107 Amp

Out stopped on account of being Cracked

M.C.

Rounded edge Disc
Put in dry 3 minutes revolve
then full current on

Total Amp 78
" hours 8
Average Amps 9.6 Per hour

Ni Bath No 1

started July 18-20

AM	Sks	Volts	Amp	Amp	Total
11	1280	9-5	10	94	
12	1280	9-5	10	96	10
PM 1.00	1280	9-5	10	96	20
2	1280	9-5	10	96	30
3	1280	9-5	10	96	40
4	1280	9-5	10	96	50
5	1280	9-5	9-5	95	59
6	1280	9-5	9.5	96	69
7.	1280	9-5	9-5	96	78 Amp 8 hours
			Out.		

Transfer to No 5
Copper Bath
July 18 - 7-30 pm
Triplicate 48 amps

Rounded edge Disc
Put in Dip 3 minutes scrubbed
then full current on

No 2 Disc started to crack
at 1.00 PM. July-18
Taken Out at 2.30 Cracked on edge

Round Edge Disc

9) 97 (10.7

Total Amps
11 hours
Average amps

Ni Bath No 2

started July 18 - 20

AM	Solu	Volts	Amp	Amp	Total	
11	1280	9-5	9-5	92		
12	1280	9-5	9-5	94	9	X
PM 100	1280	9-5	10	94	19	
2	1280	9-5	11	94	30	
2.30	1280	9-5	11	94	35 Amp	
				Out	Cracked on edge	

M. C

July-18. P.M.

~~PM~~ ~~3.00~~	~~Solu~~	Volts	Amp	Amp	Total	No 2 Disc
3.00	1280	9-5	11	94		
4.00	1280	9-5	11	94	11	
5	1280	9-5	11	95	22	
6	1280	9-5	11	95	33	
7	1280	9-5	11	95	44	
8	1280	9-5	11	95	55	
9	1280	9-5	11	95	66	
10	1280	9-5	11	95	76	Transfer to
11	1280	9-5	11	95	86	#6 Bath
12	1280	9-5	11	95	97	July 18, 20. 12 P.M.
						97 Amps Ni Plated

Round edge Disc put in
dry 3 minutes ~~[illegible]~~ then
full current on

13) 127 (9.8
1.17
100

Total Amps 127
n hours 13
Average Amps 9.8

Nickel Bath No 1
started July-18-20-

Time	Ohm	Volts	Amp	Amp	Total
8.00	1280	9-5	9	96	
9	1280	9-5	9	96	7
10	1280	9-5	9	96	18
11	1280	9-5	9	96	27
12	1280	9-5	9	96	36
AM	July	19			
1.00	1280	9.5	9	96	[illegible]
2.00	1280	9.5	9	[illegible]	[illegible]
3.00	1280	9.5	10	96	[illegible]
4.00	1280	9.5	10.5	96	[illegible]
5.00	1280	9.5	10.5	97	[illegible]
6.00	1280	9.5	10.5	98	15
7.00	1280	9.5	10.5	100	[illegible]
8.00	1280	9.5	10.5	100	116
9	1280	9.5	10.5	100	127

Transferred to
3 Copper
bath July 19 20
10 A.M.
127 Amps 2 hr

Sharp Edge disc
Put in thy 3 minutes revolve
then full current on.

~~9~~ 9 | 102 | 11.3
9.2
9.30

Total Amps 102
11 hours 9
Average Amps 11.3

Nickel Bath No 2
Started July 19-20

time AM	SP.GR	VOLTS	AMP	TEMP	TOTAL	
1.00	1280	9.5	11-5	94		
[illegible]	1280	9.5	11-5	94	11	
200	1280	9.5	11-5	94	23	
400	1280	9.5	11-5	94	34	
500	1280	9.5	11-5	94	46	
600	1280	9.5	11-5	96	57	
700	1280	9.5	11-5	98	68	
800	1280	9.5	11.5	98	80	
9-	1280	9.5	11.5	98	91	Cut
10-	1280	9.5	11	98	102	
~~11~~	~~1280~~					

Transfer to
4 Copper
bath July 19.20
10 Amps
102 Amps 11

Start from July 19, 20.
11 am — All discs to be
carried through Marbleyard
Ni Bath #1A when transferred to copper bath
Should read 1A-B Ni
Copper #1A-B

Ni

Started July 19, 20. 12 AM. Copper #1-A.
#1 Ni Bath concave disc.
Revolve 2 min dry, then full current on
Raise to 61 Amps, 5 hours.
Whirl wash, rinse distill water & whirl dry.

Cu Copp. 1-A-B
#7 Bath
Dry full current on.
Neg. wood screen put in to replace the linen one — Added 800 cc H_2SO_4 at 66° Baume 6 P.M. July 20, to copper bath.
Sp. gt. Temp. in copper should be dropped to 1170 @ 80°

Removed trees after 494 Amps.

Total Amps 666
" hours 42
Average amps 15.7

Ni.

Started July 19, 20 - 12-AM. Expir 2-A.
#2 in Bath. Convex disc
Revolve 2 min dry, then full current on.
Raw to 62 Amps. 5 hrs.
Whirl, wash, rinse distill water and w-dif dry

Remarks.
There was two slight, what may develop to be blisters which appeared after 2 hours in nickel bath.

Cu. #8 Bath Expo 2-A.P.
Very full current on.
added 800 cc H_2SO_4 at 66° Baume
July 20, 20. at 6.PM.
Held copper baths to 1170 @ 80°.

Removed trees after 572 Amps.

Total Amps 648
" Hours 36
Average Amps 18.

Ni.

Started July 19, 20. – 5³⁰ P.M. Exp #3-A.
#1 Ni Bath Jonsex disc.
Revolve 2 min. dry, then full current
disc was finger marked before put
into Ni bath.
Ran to 65 Amps Ni plate = 6½ hours.

Cu. #2 Bath. Exp. 3-A-B
dry, full current on.
New wood screen put in to replace
the linen one which broke
Added 8000 H_2SO_4 at 66° Baume
July 20 20. at 6. P.M.
Hold copper bathe to 1170 @ 80°.

Removed trees after 456 Amps.

Total Amps 626
" hours 42
Average Amps 149

19
530 to 930 = 16 hrs
20

41) 720 (17.5
41
310
287
230
205

Started July 19, 20. 5:30 P.M. Expt. # 4-A.
#2 Nickel bath. Concave disc.
Revolve 2 min. dry then full current on
Raw 181 Amps 16 hrs in plated. Hang on rack
after whirl, wash, & distill water, then dried.
6 hrs

Cu. # 6 Bath Expt. # 4-B

Put in wet full current on.
Added 8000 # H_2SO_4 @ 66° Baume
July 20, 20. at 6. P.M.
Stood copper baths to 117 @ 80°

Total Amps = 720.
" Hours = 41
Average Amps = 17.5

Ni

Started July 19, 20 – 12 P.M. Eyp. 5 A.
#1 Ni. Bath Straight face disc,
Revolve 2 min dry, then full current on
Ran to 90 Amps Ni plated 9 hours.
Whirl, wash, rinse distill water then dried and
hung on rack. → no room in copper bath.
19 hours

Cu. #8 Bath. Eyp. 5 A-B.

Put in wet, full current on
Added 1000 cc H_2SO_4 to copper bath
at 12 AM July 22, 20.

Total Amps 737
" hours 45
Average Amps 16.3

45) 737 (16.3

Ni

Started July 20, 20. @ 10 AM. Exp 6 A.
Ni Bath Put in dry, revolve 2 min, then full current
Convex disc.
Blisters appeared after Ni plating 3 hours
at the extreme outer edge
Taken out
Ran to 450 amps Ni plate
4 hours plated.

Cu. Exp 6 = 3.

Was taken out of Ni bath and
given to Mr Edison account of blisters

Cut out

Ni

Started July 20, 20 – 10 AM. Exp 7. 7

Ni Bath / Put in dry, revolve 2 min, then full current
Conover disc. Taken out wheel, wash
rinse distill water, dry & put in rack.
Ran to 77 Amps Ni Plate, 7 hours

Hung in rack and put in Cu
bath after 24 hrs on rack

Cu. Bath Exp 7A-B
Put in wet, full current,
added 1000 cc H_2SO_4 to Copper bath
July 22, 20, at 12 AM. Ran to 677 Amps
39 hours Ni Plate

Total Amps 677
" hours 39
Average Amps 17.3

July. 20, 20.

Put all in. in wet
1 Revolution then full current on.
Starting July. 20, 20.
at 3. P.M. Orders from Mr Edison

Also all copper in
wet
To be dried, then
wet distilled water.

July. 20, 20. 6. P.M.
Added 800 cc H_2SO_4
at 66° Baume to the
Copper bath.
~~Hold~~ Sp. Gr. to 1170 @ 80° Cu Bath
from July. 20, 20 at 6. P.M. till
further orders

Ni

Started July 20, 20 at 6 P.M. Exp 8 A
#1 Ni Bath

Put in wet, put belt on then full current on
Raw to 31 Amps Ni plate, 3 hours

Cut

Cu Bath #4 Exp 8 A-B

Put in wet, full current on
Fuses taken off with pliers at
340 Amps Copper plate
Hold copper bath at sp. Gr 1170
at 80° FAHR.

Cut.

Total Amps 670
" hours 35
Average Amps 19.1

35) 670 (19.1
35
320
315
5

39 | 632 | 16.2
39
242
234
80

Ni.

Started July 20, 20 @ 6. P.M. Exp 9 A.
#2 Ni Bath
Put in wet, put belt on, then full current on.
Raised to 30 amps. 3 hours Ni plates

Cu Bath #3 Exp 9 A.B.
Put in wet full current on
Removed knots with pliers at 556 amps
added 1000 cc H_2SO_4 to copper baths
July 22, 20, at 12. A.M.

Total amps 632
" hours 39
Average Amp 16.2

July 20, 20 at 12 AM. Exp 2.10 A.

#1 Cu Bath

Put in wet, revolve 1 revolution, then full current.

Raw to 27 Amps. 3 hrs completed

Started to strip in bath 1 hr 15 minutes after put in

Note stripped from disc not put in Cu

Cu # Bath

Exp 2 10 A-B

July 20, 20. at 12. P.M. Exp 11 A.

#2 Ni Bath

Put in dry, one revolution, then full current on.

Raw to 30 Rufos 3 hrs in Plated.

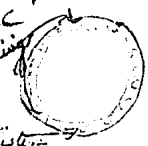
Showed signs of stripping 1 hr. 15 minutes after put in.

Exp of #10 A

Note stripped from disc, not put in Cu

Cu # Bath Exp 11 A-B

July 21, 20 at 10 A.M. Exp 12 A
#11 Bath Put in wet, revolve once, then full current on. Run 3 hours in Plate
Run to 7 Amps. — 1 hr in bath.
Filed feather edge off disc.
few cracks showed ½ hr in plate also
some blisters at outer edge
Wood filter put in bath.

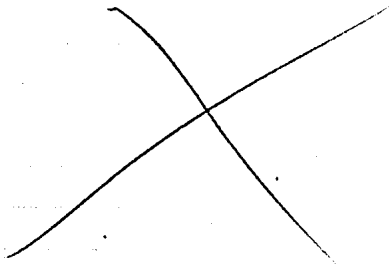


Dup of #10 A

Cut out account of slipping

Was Not put in Cu. Bath.

Exp 12 A-B



July. 21 20. @ 10 A.M. Exp# 13A.
#2 Bath. Put in wet, revolve, ~~once~~, then full current on. Run 3 hrs Ni Plate
Raw to 9.5 Amps. - 1 hr in bath.
Filed feather edge off disc.
Cracks started to show half hour after start in plating.

Strips. of #10 A.
~~Was~~ Cut out account of stripping

Was not put in Cu. bath

Exp# 13A B

Take ½ hr reading on Temp.
14A

Time	Sp. Gr.	Temp.	Volts	Amps	Total
12	1275	83	9.5	8	
12 30	"	84	"	8	8
				Out	

Ni

July 21, 20 @ 12 AM. Exp 14A
18th Put in wet, revolve once, then put full current on.
Ran to 8 Amps Ni Plated.
Started to peel ½ hour after plated.

M.G. Temp. of # 10 A

Taken ½ hr reading on temp.
15 A.

Time	Sp Gr	Temp	Volts	Amps	Total
12	1275	83	9.5	9.5	
1280	"	8.4	9.5	9.5	9.5
				Out	

N.

~~July~~ 21, 20. @ 12 AM. Exp 15-A
#2 Bath Put in wet. Revolve wet, then full current on.
Started to show blisters at 15 min after put in bath.
Raw to 9.5 Amps. Temp of 10 A.

N.G.

This was the sixth disc. tried out with ~~same results~~

Temp. before adding the 160 °F Ni. Sol. = 83 °F

EXP #	BATH	SP GR	TEMP	VOLT	AMP	TOTAL	TIME
16A	1	1270	92	9.5	7		3
		1270	96				
			93	10	8.5	8	4
			95				
			98	10	9	17	5
			100				
			101	10	9	26	6

Out

3) 26 (8.2

Total Amps 26
" hours 3
Average Amps 8.2

17A	2	1270	92	9.5	8		3
		1270	96				
			93	10	11.5	11	4
			95				
		"	98	10	11.5	23	5
			98				
		"	101	10	11.5	34	6

Out

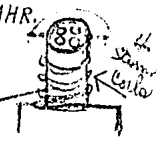
3) 34 (11.3

Ni

July 21, 20. at 3 P.M. Exp. 16 A
#1 Bath

Put in wet, one revolution then full current on. Did not show any sign of stripping. Raw to 26 Amps Ni Plate 3 hrs.

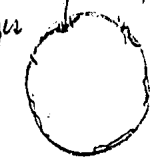
Stainless Coil put around outside of bath to keep temp constant. Hold to 100 – 105° FAHR.



Voltage raised to 10. was 9.5

July 21, 20 – at 3 P.M. Exp 17 A.
Keeps of 17 A

Started to strip after 45 min in Ni bath around edges



Raw to 34 Amps
3 hrs Ni plated

Total Amps 34
" hours 3
Average Amps 11.3

EXP #	BATH	Sp GR	TEMP	VOLT	AMP.	TOTAL	
18A	1	1270	103	10	9		6 PM
		"	104	"	9	9	7
			105		9	18	8
			105		9	27	9
			105				
			104				
						Out	

Total amps
" hours
Average amps

19A	2	1270	104	10	11.5		6
			105	"	11.5	12	7
			106		11	22.5	8
			104		11	33	9
			103				
			103				
			102				
						Out	

Total amps
" hours
Average amps

July 21, 20 @ 6 PM Exp. 18A
Run 3 hrs Ni Plate.
Put in wet, one revolution then full current on.

Exp. 19A
Run 3 hrs Ni Plate
Duplicate of # 18 A
~~Added 1000 cc H2SO4 to Sulfuric bath.~~
~~July 22, 20, at 12 AM~~

EXP	BATH	Sp. GR	TEMP	VOLT.	AMP.	TOTAL	TIME
20 A	1	1270	101	10	10		9 P.M.
			100				
			100	11	10	10	10
			102				
			102	11	10	20	11
			102				
			102		10	30	12
			102				
						Out	
21 A	2	1270	100	10	11-5		9
			100				
			101	11	11-5	12	10
			100				
			100	11	11-5	23	11
			100				
			100		11-5	35	12
			100				
						Out	

Total Amps 30
" hours 3
Average Amps 10.

Total Amps 35
" hours 3
Average Amps 11.5

July 21, 20. @ 9. P.M. Exp 20 A

Put in wet, revolve once, then full current on.

Exp 21 A.

Duplicate of #20 A.

EXP	BATH	Sp. GR	TEMP.	VOLT.	AMP.	TOTAL	Time AM
22 A	1	1270	103	10	9.5		12
			100				
			100				
		11	100	11	9.5	9	1 July 22 AM
			101				
			100		9.5	19	2 AM
			101				
			100		9.5	28	3
						Out	

Total Amps 28
" hours 3
Average Amps 9.5

							Time
23 A	2	1270	100	10	11.5		12 AM
			99				
		11	99	11	11.5	12	1 July 22
			100				
			100				
			102		11.5	23	2
			102				
			101		11.5	35	3
						Out	

Total Amps 35
" hours 3
Average Amps 11.5

July 22, 20 July 21, 20 at 8 AM Exp 22 X
Put in vat rinse once
then Current on

Exp 23 A
Duplicate of # 22 X

EXP 24A	BATH	Sp. G.R	TEMP.	VOLT.	AMP.	TOTAL	
4PM	1	1260	110	9.5	11.5		
5		"	"	"	11.5	11.5	
6		"	115	"	11.5	23	
7		"	118	"	11.5	34	
8		"	"	"	11.5	46	
9		"	"	"	11.5	57	9/102/11
10		"	"	"	11.5	69	
11		1265	"	"	11.5	80	
12		"	"	"	11.5	92	
July 30, 20			"	"			
1AM		"	120	"	10	102	Out
EXP 25A	#2	1260	118	9.5	13		
7PM		"	"	"	13	13	
8		"	"	"	13	26	
9		"	"	"	13	39	
10		"	"	"	13	52	
11		1265	"	"	13	65	
12		"	"	"	13	78	
July 31							
1AM		"	"	"	13	91	
2					13	104	Out
		8)	104	13.			

Memo.

Started July 30, 20 at 4 P.M. Exp 24A.
#1 Bath

Run 4 hi fased discard females Moore's mandril 15 seconds in cleaning bath could not wait for more mandril + put on the plates
15 " " 8/4 Plate hi 100 Amps put in wet current off. after 1 Revolution put current on
Fred Wells Rubber Copper put in wet current on. Strip and put back.
15 seconds cleaner – 15 seconds 8/4 and keep on as many times as you can.

Total Amps 102
" hours 9
Average amps 11.5

Started July 30, 20 at 6 P.M. Exp 25A
#2 Bath

Duplicate of Exp #24A
Hi

Total Amps 104
" hours 8
Average Amps 13

Exp 26 A Bath #1

Very of Exp. 24 A. Except molds given preliminary brushing before going with electric cleaner.

10 / 103 / 10

Exp. #27 A Bath #2

Very of Exp. 24 A

Same treatment as above

120 /

July 31, 9 AM

Exp 26 A	Time	Sp. Gr	Temp	Volt	Amp	Total	
#1	9 AM	1280	98	9.5	9		
Bath	10	"	102	"	9.5	9	
	11	"	108	"	10.	19	
	12	"	115	"	10.5	30	
	1	"	115	"	10.5	40	
	2	"	"	9.5	10.5	51	Total Amp 90
	3	"	107	"	10.5	61	" hours 10
	4	"	"	"	10.5	72	Average Amp 10
	5	"	"	"	10.5	82	
	6	"	"	"	10.5	93	
	7	"	"	"	10.5	103	Out
Exp 27 A	9 AM	1280	100	9.5	10.5		
#2	10	"	103	"	11.0	11	
Bath	11	"	108	"	12.0	23	
	12	"	113	"	12.5	35	
	1	"	115	"	12.5	48	
	2	"	"	"	12	60	
	3	"	"	"	12	72	2 small blisters developed at 2 PM.
	4	"	100	"	12	84	
	5	"	"	"	12	96	
	6	"	"	"	12	108	
	7	"	"	"	12	120	Out
			Total Amps			120	
			" hours			10	
			Average Amps			12	

Epp 28 A 15 second in cleaner then
15 " " 8/4
then stripped and
put back

1 stripping
1 Bath

1 Ni Bath. Ni Epp 28 A

#1 Ni Bath Started

TIME	BATH	SP. GR	TEMP	VOLT	AMP	TOTAL	
7		1270	90	9	9		
8					9		
9					9		Avg. 1,30
10					9		
11			93		9		
						45	1st stripping
12		1275	104	9.5	10		
1					10	20	
2					10	30	
3					10	40	
4					9.5	49	
5					9	58	Avg. 1,20.
6					9	67	
7					9	76	
8					9	85	
9			105		8.5	94	out
10							2nd strip
10,30		1260	100	9.5	10		3rd time in
11.30		"	"	"	10		
12:30		"		"	10		Avg. 2,20.
1:30		"		"	10		
2:30		"	"	"	10		
						50	out for 3rd strip

#1 Bath Ni

Eff 28 A

Expo	Time	Sp. Gr	Temp	Volt	Amp	Total	
Aug 2	4.30	1265	103	9.5	10		1st
	5.30	"	"	"	10	10	stripping
	6.30	"	107	"	10	20	
	7.30	"	107	"	8	38	Out
	8.30	"	"	"	8	46	
Aug 2	12 M	1270	1				No 2 Bath
	Time	Sp Gr	Temp	Volt	Amp	Total	5th
	11.30	1270	95	9.5	10		stripping
	12.30	"	"	9.5	10	10	
	Aug 3						
	1.30	"	100	"	10	20	
	2.30	"	"	"	10	30	
	3.30	"	102	"	10	40	
	4.30	"	"	"	10	50	
	5.30	"	"	"	105	60	
	6.30	"	"	"	105	71	
	7.30	"	105	"	105	81	
	8.30	"	"	"	105	91	Out
Aug 3,	10 AM	1275	103	9.5	9		6th
	11	"	"	"	9	9	
	12	1270	104	"	9	18	stripping
	1	"	"	"	9	27	
	2	"	"	"	8	35	Out

Aug 3 #1 Bath ni

Exp

Epp/257

	TIME	Sphgm	Temp	Pulse	Resp	Total	
	3 PM	1270	106	9.5	10		7th
	4	"	"	"	10	10	
	5	"	107	9	10	20	Stripping
	6	"	110	"	10	30	
	7	"	106	8.5	10	40	Out
Aug 3	8 30	1270	105	10	10		8th
	9 30	"	"	"	10	20	
	10 30	"	"	"	10	30	Stripping
	11 30						
	12 30						Out
Aug 4	1 AM	1270	103	9.5	9.		9th
	2	"	103	"	8.5	8	
	3	"	"	"	8.5	16	Stripping
	4	"	"	"	8.5	25	
	5	"	"	"	8.5	33	
	6	"	105	"	8.5	42	
	7	"	"	"	8.5	50	
	8	"	"	"	8.5	69	Out
Aug 4	10	1270	103	9.	9		
	11	"	"	"	9	9	10th
	12	"	105	"	9	18	Stripping
	1	"	"	"	9	27	
	2	"	"	"	9	36	Out

Copper Baths

Aug 4, 20 } added 10 cc general Bath dope

Aug 5, 20 } 20 cc added double dose general bath dope

1 Bath Ni

Exp 28 A

Date	TIME	Sp gr	Imp	Volt	Amp/2	Total	Remarks
Aug 4	3 PM	1270	108	9.5	10		11th
	4	"	"	"	10	20	"
	5	"	105	"	10	30	Stripping
	6	"	"	"	10	40	
	7	"	"	"	10	50	Out
Aug 4	7.30 PM	1260	108	9.5	10		12th
	8.30	"	"	"	10		
	9.30	"	"	"	10		Stripping
	10.30	"	"	"	10		
	11.30	"	"	"	10	40	Out
Aug 4	12	1260	104	9.5	10		13th
Aug 5	1	"	"	"	9.5	9	Stripping
	2	"	"	"	8.5	17	
	3	"	"	"	8.5	26	
	4	"	"	"	8.5	34	Out
Aug 5	4.30	1260	102	9.5	8		14th
	5.30	"	106	"	8.5	8	Stripping
	6.30	"	"	"	8.5	17	
	7.30	"	"	"	8.5	25	
	8.30	"	"		9	34	Out
Aug 5	9.30 AM	1270	100	9.	9.		15th Stripping
	10.30	"	"	"	9-	9	
	11.30	"	102	"	9-	18	
	12.30	"	105	"	9-	27	
	1.30 PM	"	"	"	9	36	Out

Stopped fifteen min: to fix primb

#1 Bath

Exp 2877

EXP	TIME	Sp gr	Temp	Volts	amps	Total	
Aug 4	2.15	1280	108	9.5	9.5		16th Stripping
	3.15	1280	108	9.0	9.5	9.5	
	4.15	1280	108	9.0	10	19.	
	5.15	"	"	"	10.5	30.	
	6.15	"	"	"	10.5	41.	
Aug 5	7.00 AM	1280	106	9.5	10		
	8.	"	"	"	10	10	
	9.	"	"	"	10	20	
	10	"	"	"	10	30	
	11	"	"	"	10	42	Out
Aug 5	11 PM	1280	106	9.5	10		17th
	12	"	"	"	10	10	Stripping
	1 PM	"	105	"	10	20	
	2.30	"	"	"	10	30	
	3.45	"	"	"	10	40	Out
Aug 6	4 AM	1280	106	9.5	10		18th
	5	"	"	"	10	10	Stripping
	6	"	"	"	10	20	
	7	"	"	"	10	30	
	8	"	"	"	10	40	Out

#2 Batts

Exp 29 #

EXP 29 #	TIME	Sp gr	Temp	Volts	Amp	Total	
	7	1270	90	9	8		
	8				8		
	9				9		Aug 1,20,
	10		93		9		
	11		"		10	44	1st charging
	1130	1275	109	9.5	10		
	1230				10	20	
	130				10	30	
	230				10	40	
	330				9.5	49	
	430				9	58	
	530				9	67	Aug 1,20
	630				9	76	
	730				9	85	
	830		105		8.5	94	out 2nd charge
	930						
	10,30	1260	102	9.5	11.5		
	11,30	"	"	"	11.5		Aug 3
	1230	"	104	"	11.0		
	130	"	107	"	11.0		
	230	"	107	"	11.	56	out 3rd charge

#2 Batch

Exp #29 A

EXP	TIME	Sp. gr.	Temp	Vol.	Amp	Total	
	4.30	1265	103	9.5	11.5		4th stripping
	5.30	"	"	"	11.5	11	Aug 2, 20
	6.30	"	"	"	11.5	23	
	7.30	"	"	"	12	35	
	8.30						Out
Aug 2	11.30	1280	96	9.5	8		
	12.30	"	"		8	8	
Aug 3	1.30 PM	"	100		8	16	
	2.30		"		8	24	5th " stripping
	3.30		"		8	32	
	4.30		"		8	40	
	5.30		102		8	48	
	6.30		"		8	56	
	7.30		105		8	64	
	8.30		"		8	72	Out
Aug. 3,	10 AM	1275	105	9.5	10.5		6th "
	11	"	"		11.5	11	
	12	1270	104		11.	22	Stripping
	1 PM.	"	"		11.5	34	
	2 "		"		10.5	45	Out
Aug 3, 20	3	1270	107	9.5	11		7th stripping
	4	"	"	"	11	11	
	5	"	"	9	10	21	
	6	"	108	"	10	31	
	7	"	107	8.5	10	41	Out

Aug 4, 20 at 1 PM,
8-4
added more to
fetch proper strength

#2 Batch

Epper 29A

Exp	Time	Specific Gravity		Specific Gravity			
Aug 3	8:30	1270	106	10	12		8th stripping
	9:30	"	"	"	11	1.B	
	10:30	"	"	"	11	22	
	11:30	"	"	"	11	33	
	12:30	"	"	"	11	44	Cut
Aug 4	1 PM	1270	104	9.5	11		
	2	"	105	"	10.5	10	9th stripping
	3	"	"	"	10.5	20	
	4	"	"	"	10.5	31	
	5	"	"	"	10.5	41	
	6	"	"	"	10	51	
	7	"	106	"	10	21	
	8	"	"	"	10	11	Cut
Aug 4	10 PM	1270	104	9	10		10th stripping
	11	"	"	"	10	10	
	12	"	105	"	10	20	
	1	"	"	"	10	30	
	2	"	"	"	10	40	Cut
Aug 4	3	1270	104	9.5	11		
	4	"	"	"	11	11	11th stripping
	5	"	106	"	11	33	
	6	"	"	"	10	43	
	7	"	"	"	10	53	Cut

1 PM, ~~Aug 4, 20~~ 10 cc added 8/4 to proper strength

#2 Bath in

Eggs 29th

	TIME	Sp Gr	Temp	Volt	amp	Total	
Aug 4.	7 30 AM	1260	105	9.5	11		12th Stripping
	8 30	1260	"	"	11		
	9 30	"	"	"	11		
	10 30	"	"	"	11		
	11 30	"	"	"	11	44	
Aug 4 30	12	1260	105	9.5	10.5		13th Stripping
Aug 5	1 AM	"	"	"	10	10	
	2	"	"	"	10	20	
	3	"	"	"	10	30	
	4	"	"	"	10	40	Out
	5						
	6						
	7						Out
Aug 5	4 30	1260	103	9.5	10		14 Stripping
	5 30	"	104	"	9.5	9	
	6 30	"	"	"	9.5	19	
	7 30	"	"	"	9.5	28	
	8 30	"	"	"	9	37	Out
Aug 5th	9 30 AM	1270	102	9.	9		15th Stripping
	10 30	"	103	"	9.5	9	
	11 30	"	104	"	9.5	19	
	12 30	"	107	~~9.5~~	9.5	28	
	1 30 PM	"	107	9	9.5	38	Out

20 cc Added double dose gen. bath dose

2 Bath. Ni

Sept 29 A

EXP#	TIME	Sp gr	Temp	volts	amp	Total	
Aug 5	2.15	1280	108	9.5	9.5		
	3.15	"	"	"	9.5	9.5	
	4.15	"	"	9.5	10	19	
	5.15	"	"	"	10.5	30	
	6.15	"	"	"	10.5	41	
Aug 5	7	1280	108	9.5	10.5		16th Stripping
	8	"	"	"	10	10	
	9	"	"	"	10	20	
	10	"	"	"	10	30	Out
Aug 5, Aug 6	11 30	1280	108	9.5	10.5		17th
	12 30	"	"	"	10.5	10	Stripping
	1.30	"	105	"	10	20	
	2 30	"	"	"	10	30	
	3 45	"	"	"	10	40	Out
Aug 6	4	1280	108	9.5	10		18th
	5	"	"	"	10	10	Stripping
	6	"	"	"	10	20	
	7	"	"	"	10	30	
	8	"	"	"	10	40	Out.

3 Bath. Cu Exp 30. B.

Exp	Time	Sp gr	Temp	Volts	Amp	Total	
	4 PM	1170	80	9.5	18		1st time in
	5	"	84	8.5	18	18	Aug. 3, 20.
	6	"	"	"	18.5	36	
	7	"	"	"	19	55	
	8	"	"	"	19	74	Out
Aug. 6	9 AM	1265	100	9.5	9		#1 in Bath
	10	"	"	"	9	9	19th
	11	"	102	"	9	18	stripping
	12	"	"	9-	9	27	
	1 PM	"	"	9-	9	36	
			Out				
Aug. 6, 20	130 PM	1265	105	9	9		#1 Bath
	230	1270	107	"	9	9	in
	330	"	"	"	9	18	
	430	"	"	"	9	27	20th
	530	"	"	"	9	36	stripping
			Out				
Aug. 6, 20	7 PM	1270	109	9	9.5		#1 Bath
	8	"	"	"	9.5	9.5	in
	9	"	"	"	9.5	19	
	10	"	"	"	9.5	28	21 stripping
	11	"	"	"	9.5	38	
			Out				

4 Bath. Cu. Exp. 31B

EXP	TIME	Sp gr	Temp	Volts	Amps	Total	
	4 PM	1170	80	9.5	15		1st time in
	5	"	84	8.5	15.5	15	Aug. 3, 20.
	6	"	"	"	15.5	31	
	7	"	"	"	16	47	
	8	"	"	"	16	63	Out
Aug 6	9 AM	1265	101	9.5	9		#2 in Bath
	10	"	"	"	9	9	19th
	11	"	103	"	9	18	stripping
	12	"	102	9-	9	27	
	1 PM	"	"	9-	9.5	36	Out
			"				
Aug 6	1 30 PM		Held				~~#2 B/th~~
	2 30						~~20th in~~
	3 30						~~stripping~~
	4 30						
	5 30						~~Out~~
Aug 6	6 30 PM	1270	107	9-	10		#2 Bath
	7 30	1270	"	"	10	10	in stripping
	8 30	"	"	"	10	20	#2
	9 30	"	"	"	10	30	
	10 30	"	"	"	10	40	Out

5 Bitter Cu Exp #32 B.

EXP.	TIME	[illegible]	[illegible]	[illegible]	Amp.	TOTAL	
	4 PM	170	90	9.5	17		1st time in
	5	"	84	8.5	17.5	17	Aug. 3, 20.
	6	"	"	"	17.5	35	
	7	"	"	"	18	53	
	8	"	"	"	18	71	Out

6 Bath Cu Epp 33 B

4PM	170	80	9.5	16		1st time in
5	"	84	8.5	16.5	16	Aug. 3, 25.
6	"	"	"	16.5	33	
7	"	"	"	17	50	
8	"	"	"	17	67	Cut

7 Bath

Exp 34 B

DATE

Exp#	Time	Sp. gr	Temp	Volts	Amp	Total	
	4 PM	1170	80	9.5	15		1st time in
	5	"	84	8.5	16.5	16	Aug. 3, 20.
	6	"	"	"	16.5	33	
	7	"	"	"	16.5	49	
	8	"	"	"	16.5	66	Cut

#1 Bath Nickel Plate

DATE Aug 6

Exp.	Time	Sp gr	Temp	Volts	Amp	Total	#1 Bath Nickel
	12.00	1270	109	9.5	10		
Aug 7	1.00	"	"	"	10	10	2:1 stripping
	2.00	"	"	"	10	20	
	3.00	"	"	"	9	29	
	4.00	"	"	"	9	38	Cut
	Time	Sp gr	Temp	Volts	Amp	Total	2:1 stripping
Aug 7	4.30	1270	109	9.5	10		
	5.30	"	"	"	10	10	Nickel Bath #1
	6.30	"	"	"	10	20	
	7.30	"	"	"	10	30	
	8.30	"	"	"	10	40	Cut
Aug 7	8.30 PM	1270	105	9.5	9		Bath #1
	9.30	"	"	"	9	9	2:1
	10.30	"	"	"	9	18	stripping
	11.30	"	"	"	9	27	
	12.30	"	"	"	9	36	Cut
Aug 7	1.30 PM	1270	103	9.5	10		Bath #1
	2.30	"	"	"	10	10	2:1
	3.30	"	105	"	10	20	stripping
	4.30	"	"	"	10	30	
	5.30	"	108	"			Cut

#2 Batt Ni Plate

DATE aug 6

EXP#	Time	Sp gr	Temp	Volts	Amp	Total	#2 Batt
	1200	1270	107	9.5	11		Nickel
aug 4	1.00	"	"	"	10	10	32 oz Stripping
	2.00	"	"	"	10	20	
	3.00	"	"	"	10	30	
	4.00	"	"	"	10	40	Out
	TIME	Sp gr	Temp	Volts	Amp	Total	#2 Batt
aug 4	4.30	1225	110	9.5	11		23 Stripping
	5.30	"	"	"	11	11	
	6.30	"	"	"	10	21	
	7.30	"			10	31	
	8.30	"	"	"	10		Out
Aug 7	8 30 AM	1270	104	9.5	10		#2 Batt
	9 30			"	10	10	
	10 30				10	20	24 oz
	11 30	"	"	"	10	30	
	12 30	"	"	"	10	40	Out
Aug 7	1 30 PM	1270	105	9.5	11	—	#2 Batt
	2 30	"	"	"	11	11	25 oz
	3 30	"	105	"	10	21	
	4 30	"	"	"	10	31	
	5 30	"	111	"	10	41	
	6 30				10	51	
	7 30				10	61	
	8 30				10	71	
	9 30				10	81	
	10 30				10	91	Out

#2 Bath Ni Plate

Date	Time	Spl Gr	Temp	Volts	Amps	
Aug 7	11,30	1270	110	9.5	11	26th
	12,30	"	"	"	10	
	1,30	"	"	"	10	Strip
	2,30	"	"	"	10	
	3,30	"	"	"	10	Out
Aug 8	4	1270	111	9.5	10	27th
	5	"	"	"	10	
	6	"	"	"	10	Strip
	7	"	"	"	10	
	8	"	"	"	10	out
Aug 8	9	1270	110	9.5	45	28th
	10	1255	110	8.5	9	
	11	1255	110	8.0	17	Strip
	12	"	"	"	25	
	1	"	"	"	33	Out
Aug 9	245	1260	107	8	5	29th
	3 45	"	"	"	9.5	
	4 45	"	"	"	18.8	Stripping
	5 45	1260	110	9.5	27	
	6 45	"	113	9	36	Out

1 Bath Ni Plate

DATE EXPE	Time	Sp. Gr.	Temp.	Volts	Amps	Strip	#1 Bath
Aug 7	6 PM	1280	108	9.5	10		25 stripping
	7	"	"	"	10	10	
	8	"	"	"	10	20	
	9	"	"	"	10	30	
	10	"	"	"	10	40	Out
Aug 7	11 30	1275	104	9.5	10		#1 Bath
	12 30	"	"	"	10	10	26 stripping
	1 PM	"	"	"	10	20	
	2 30	"	"	"	10	30	
	3 30	"	"	"	10	40	Out
Aug 8	4	1270	105	9.5	10		#1 Bath 27 strip
	5	"	"	"	10	10	
	6	"	"	"	10	20	
	7	"	"	"	10	30	
	8	"	"	"	10	40	Out
Aug 8	9	1270	105	9.5	10		#1 Bath 28th
	10	1255	110	8	9	10	
	11	1255	110	8	8.5	18	Stripping
	12	"	"	"	8.5	27	
	1	"	"	"	8.5	35	Out

#2 Nickel

Date	Time	Sp.Gr.	Temp	Volts	Amp	
Aug 8	7 45	1260	113	9	45	29th
	8 45	"	"	"	54	
	9 45	"	"	"	63	Stop
	10 45	"	"	"	72	
	11	"	"			out

Removed after 29th time in bath & with 72 amp hrs in, and put in Copper bath with full current on.

#1 Nickel Bath

Date	Time	Sp.Gr.	Temp	Volts	Amp	
Aug 8	2	1260	108	8		29th
	3 45	"	"	"	18	
	4 45	"	"	"	16	Stop
	5 45	"	110	"	25	
	6 45	"	113	"	34	out
Aug 8	7 45	"	"	"	49	
	8 45	"	"	"	52	
	9 45	"	"	"	61	
	10 45	"	"	"	70	
	11	"	"	"		out

Removed on 29th time in bath after 70 amp hrs. and put in Cu bath #4 with full current on.

Note = 20cc Cu Dope added 10 AM.
20 cc " " 3 PM

M.G.
Stuck coming off
and had to bend plate
to strip from

2 Bath in Aug 10, 20. Exp. 35 A

DATE / EXP#	TIME	Sp gr	Temp	Volts	Amp	Total	Remarks
	10 PM	1280	100	8	9		
	11	"	"	"	9	9	
	12	"	106	9.5	9.5	18	
	1 AM	"	108	"	9.5	28	Aug. 11, 20.
	2	"	109	"	10	38	
	3	"	"	9	9	47	
	4	"	"	"	9	56	
	5	"	"	"	9	65	
	6	"	"	"	9.5	75	
	7	"	"	"	9.5	84	
	8	"	"	8.5	9.5	94	
	9	1265	110	8.5	9	103	Out. Transfer to # 4 Copper Bath

Mr Edison
wants to play the
metal disc when
it is back up with
copper.

#1 Bath Ni Exp 36A

DATE Aug. 10, 20.

EXP#	TIME PM	Sp gr	Temp	Volts	Amp	Total	Remarks
	10 30	1280	100	8	9		
	11 30	"	105	9	10	10	Back is
	12 30	"	108	9.5	10	20	not varnished
	1 30 PM	"	110	"	10	30	Aug. 11, 20.
	2 30	"	"	"	10	40	
	3 30	"	"	9	9.5	49	
	4 30	"	"	"	9.5	59	
	5 30	"	"	"	9.5	68	
	6 30	"	"	"	9.5	77	
	7 30	"	"	"	9.5	87	
	8 30	1265	108	8.5	9.	96	
	9 30	"	"	"	9	105	Out

Transfer to #2 Copper bath.

Mr Edison wants to play this metal disc when, it is backed up with Copper.

1 Bath Ni

Exp 37A

DATE Aug 11, 20 at 10 AM

EXP#	TIME	Sp gr	Temp.	Volts	Amps	Total	Remarks
	10AM	1265	108	8.5	9		
	11	"	"	"	9	9	This disc was polished
	12	"	109	"	9	18	
	1PM	1270	"	"	9	27	Run to 80
	2	"	"	8	9	36	Amps then
	3	"	106	"	9	45	back up
	4	"	"	"	9	54	with copper
	5	"	105	"	9	63	and strip
	6	"	"	"	8	71	for Mr Edison
	7	"	102	"	8	79	wants to
	8	"	"	"	8	87	play the
				Out			metal disc

Transfer to #5 Copper bath

2 Bath Ni Exp 38 A.

DATE Aug 11, 20, @ 10 AM.

EXP #	TIME	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Remarks
	10 AM	1265	110	8.5	9		This disc
	11	"		"	9	9	was polished
	12	1270	109	"	9	18	
	1 PM.	"	"	"	9	27	Rem to 80
	2	"	"	8	9	36	Amp. then
	3	"	107	"	9	45	back up
	4	"	"	"	9	54	with topper
	5	"	"	"	9	63	and strip
	6	"	"	"	8.5	71	to be given
	7	"	104	"	8.5	80	to Mr Edison
					Out.		to play the
							metal disc.
							Transfer to
							# 60 Copper
							bath

F 1 B

Eff 39 #

10.	12 70	106	9.	14

Run 1 min then back off with 3 per four hours and strip to see if dents appear

Aug. 13, 20

Put in #7 Cu Bath Run for 4 hours.

did not show any dents after stripping

Put in 22 Bldg Aug 14 1 PM

2 P.M. 1st strip from [illegible]

#1 Bath hi Exp 40 A

Start Aug. 13 20. at 12 AM.

TIME	Sp	Inp	Volts	Amps	Total	Remarks
12 AM	1270	105	8.5	9		Put in dry
1 PM	"	"	"	8.5	9	1 revolution
2	"	"	"	8.5	18	thin current
3	"	"	"	8.5	26	on, run to
4	"	"	"	8.5	35	40 amps.
5	"	"	"	8.	43	Cut to strip

No dents appeared

Duplicates of above Exp 41 A

Except put in 22 Bldg Baths,

Aug 13,	7 PM	1265	102	8.5	6.5	
	8				6.5	
	9				6.5	Put in dry
	10				6.5	1 rev, then
	11				6.5	current on
	12				6.5	42 Cut
Aug 14	1 AM				6.5	Exp for dents
	1:30					

Dup of Exp #41 A Exp 42 A.

Made to the above.

Aug. 13,	7 PM	1265	102	8.5	6.5	Put in dry
	8			"		1 rev, then
	9					current on.
	10			"		42 Cut
	11					
	12			"		
Aug 14	1 AM					Exp for dents
	1:30					

Put in 1st strip spring from strip
22 BCG
2 R.P.M.

Put in 22 BCG
4 R.P.M.
2nd strip spring from strip

Bath

Eyp #43A

Exp#	TIME	Sp gr	Temp	Volts	Amp	Total	Remarks
Aug 13	9 30 PM	1265	102	8.5	6.5		Put in wet
	10 30						1 rev, then
	11 30						current on
	12 30					33	Eyp for cents
Aug 14	1 30					Out	
	2 30						
Aug 13	9 30 PM	1265	102	8.5	6.5		Eyp #44A
	10 30						Put in wet
	11 30						1 rev, then
	12 30						current on
Aug 14	1 30					33	Eyp for cents
	2 30					Out	
Aug 14	2 30 PM	1270	102	8.5	6.5		Eyp #41A
	3 30						Put in dry
	4 30						1 rev then
	5 30						current on
	6 30						
	7 30						
	8 30					46	
	9 30					Out	
Aug 14	2 30 PM	1270	102	8.5	6.5		Eyp 42A
	3 30						Put in dry
	4 30						1 rev then
	5 30						current on
	6 30						
	7 30						
	8 30					46	
	9 30					Out	

Put in 22 Bed
2nd stripping from Aino
4 R.P.M.

Experiment
3rd stripping

Bath

Exp#	TIME	Sp Gr	Temp	Volts	Amps	Total	Remarks
Aug 14	230 PM 330 430 530 630 730 830 930	1270	102	8.5	6.5	46	Exp 43 A Put in wet 1 rev, then full current on Cut
Aug 14	230 PM 330 440 530 630 730 830 930	1270	102	8.5	6.5	46	Exp 44 A Put in wet 1 rev, then full current on Cut
Aug 14	1 2 3 4 5 6 7 8	1270	98 " 102 104 "	8.5	6 6 6 6 6	12 24 30 36 42	Exp 43 A Put in wet 1 rev then full current on Cut at
Aug 14	1 2 3 4 5 6 7 8	1270 " " " "	98 " 102 105 107	8.5	6 6 6 6 6 6 6 6	42	Exp 44 A Put in wet 1 rev, then full current on Cut at.

Bath Ni Epo 43 A

Start Aug. 15, 20. @ 6 30 PM

Exp #	TIME	Sp gr	Int	Volts	Amps	Int	Remarks
	6 30 PM	1265	105	6.5	6		250 cc ence.
	7 30	1265	108	7	6	6	Glacial Acetic
	8 30	1265	108	7	6	12	dark. Faint
	9 30	1270	108	7	6	18	red before adding
	10 30	1270	108	7	6	24	Glacial Acetic
	11 30	1270	108	7	6	30	Run to 40 Amps
	12 30	1270	108	7	6	36	Out.
			Stopping				

This disc was cleaned with small hand brush before put in Elect Cleaner.

Start #2 Bath in Eqp 44#
Start Aug 15, 20 @ 6.40. P.M.

TIME						
640 P.M.	1265	105	65	6		Duplicate
740	1265	105	7	6	6	of Eqp 44#
840	1270	105	7	6	12	
940	1270	105	7	6	18	
1040	1270	105	7	6	24	Take out at 4#
1140	1270	105	7	6	30.	Amps.
1240	1270	105	7	6	36	Out

4# Stripping

Slice was cleaned with small hand brush before put in Elect. Bath

#11 Batt. Ni

Exp 43A

DATE Aug 16-20 3.30AM

EXP#	TIME	Sp gr	Temp	Volts	Amp	Total	Remarks
	3.30	1280	105	9.5	10		
	4.30	1280	105	9.5	10	10	temp of 4th
	5.30	1280	105	9.5	10	20	strip fully exp'd
	6.30	1280	108	9.5	10	30	raised to 10 amp
	7.30	1280	108	9.5	9.5	39	[illegible]
	8.30	1270	107	9.5	9.5	49	
	9.30	"	"	"	9	58	
	10.30	"	"	"	9	67	Cut

Transfer to #699 Batt Ch at 24 Bldg 13 Amp Hrs. at 11.30 AM Aug 16 20. 2 P.M.

#2 Batt Ni

Exp 44A

DATE Start Aug 16-20 3-30 AM

EXP#	TIME	# gr	Imp	Volts	Amp	Total	Remarks
	3.30	1280	105	9.5	10		
	4.30	1280	105	9.5	10	10	5th strip opening
	5.30	1280	105	9.5	10	20	Duplicate
	6.30	1280	108	9.5	10	30	4 fourth strip
	7.30	1280	108	9.5	9.5	39	expect reduced
	8.30	1270	107	9.5	9.5	49	to 10 amp-hrs
	9.30	"	"	"	9.	58	
	10.30	"	"	"	9.	67	Cut

Transfer to #69 Batt, Ni 14 amp-hours. at 11.30 AM. Aug. 16, 20, 2 R.P.M

Varnish removed by benzole, dried on
Rubber coated by Fred Witt.
Polished on machine
Washed in washer + Brushed with
Standard Brush. (Brady has it),
then rinse distill water.

Electr. Cleaned 15 seconds
Washed, rinsed distill water, then
one minute in 8/4 washed rinsed
distill water and put in bath wet
one revolution, then current on
Run to 70 Amp hours and strip

Be careful in stripping, not to
mar the Edge
Have E & J examine under
microscope.

1 Bath Ni Exp 45 A

DATE Aug. 16, 20 at 5:30 P.M.

EXP #	TIME	Spec Gr	Temp	Volts	Amps	Total	Remarks
	6 PM	1270	107	9.5	10		
	7	"	"	"	10	10	Strip at
	8	"	105	"	10	20	70 amp hrs.
	9	"	"	"	10	30	
	10	"	104	"	10	40	8/4 for 1 min
	11	"	"	"	10	50	disc a light
	12	"	"	"	10	60	straw color.
Aug. 17, 20	1 AM	"	"	"	10	70	
							Back up with copper in 24 hrs

Duplicate of Exp #45A

2 Bath in Exp 46A

DATE Aug. 16, 20.

EXP #	Time	Temp	Qu	Temp	Vol	Amp	Total	Remarks
	6PM	127.0		107	9.5	10		
	7	"		"	"	10	10	
	8	"		106	"	10	20	
	9	"		"	"	10	30	
	10	"		105	"	10	40	
	11	"		"	"	10	50	
	12	"		"	"	10	60	
	1AM	"		"	"	10	70	
	2							

15 Sec. in Elect Cleaner
1 Min. in 8/4.

Put in 2 Bdg back up with Copper to see if those trichels appear, or deny.

#1 Exp. Ni Exp. 47A

DATE Aug 14-20

Time	Sh. Gr.	Amp.	Volts	Amp.	Total
200	1270	104	9.5	9	
300	1270	104	9.5	9	18
400	1270	104	9	8	26
500	1270	104	9	8	34
600	1270	104	9.5	8.5	43
700	1270	104	9.5	8.5	52
800	1270	104	9.5	8.5	60
9	"	105	9.	8.5	69
10	"	107	9.5	8.5	77
11	"	"	"	8.5	86
12	"	"	"	8.5	94
1 AM	"	"	"	8.5	103

2 Bath Ni

Exh 48A

Date Aug 17-20

Time	Sp Gr	Temp	Volts	amp	Total	
2.00	1270	104	9.5	9		
3.00	1270	107	9.5	9	18	
4.00	1270	107	9	9	27	
5.00	1270	105	9	9	36	
6.00	1270	105	9.5	9	45	
7.00	1270	105	9.5	9	54	
8.00	1270	105	9.5	9	63	
9	"	"	9	9	72	
10	"	106	9.5	8.5	80	
11	"	"	"	8.5	91	
12	"	"	"	8.5	99	
1 P.M.	"	"	"	8.5	108	Cut
2						
3						

15 Sec. in Elect: Cleaner
1 Min in 8/4
Run to 103 Amps.
Transfer to #24 Bldg. to
back up with Copper.

Face of Ni was brushed with
hand brush before entering Cu

1 Bath Ni Eyz #43A

Started Aug 18-20

Time	Speed	Tank	Volts	Amp	Total	
2.00	1290	105	9.	9.5		
3.00	1290	"	"	9.5	9	
4.00	"	"	"	9	18	
5.00	"	"	"	9	27	
6.00	"	108	9.5	9.5	37	
7.00	"	109	"	9.5	46	
8.00	"	"	9	8.5	55	
9	1280	107	9	8.5	63	
10	"	"	9	8.	71	
11	"	"	"	8.	79	
12	"	105	"	8	87	
1	"	"	"	8	95	
2	"	"	"	8	103	Out

Duplicate of #44A

#2 Bath Ni

Started Aug 18-20

Exp #447

Time	Spgr	Temp	Volts	Amp	Total	
2.00	1290	105	9	9.5		
3.00	"	"	"	9.5	9	
4.00	"	"	"	9.5	19	
5.00	"	"	"	9.5	28	
6.00	"	108	9.5	9.5	38	
7.00	"	"	"	9.5	47	
8.00	"	"	9	9	56	
9	1280	106	"	9	65	
10	"	"	"	9	74	
11	"	"	"	9	83	
12	"	"	"	9	92	
1PM	"	105	"	9	101	
2	"	"	"	9	110	Out

#1 Bath

Mr Edison Copper face
Master Male
Epp# 497
Telegraph Mary

Start Aug. 19, 20.

Time	Sp Gr	Temp	Volts	Amps	Total	
11 PM						
12	1.	105	9	4	4	Polish twice
1 PM	12			"	8	Wash + Brush
2	1			"	12	Cleaner 15 sec,
3	1			"	16	8/4 till deep
4				8½	24	red wash
5				8.5	33	Then put in
6				8.5	41	Ni bath 4 Amp
7				8.5	50	for 4 hours.
8				8	58	Then go to full
9				8	66	amperes.
10				8	72	Out
1 AM						

Remove from Ni bath + Put in Cu at 4 Amps for 3 hours then full current 10V, not above 17 Amp + Plate for 52 hours.

[ITEM(S) FOUND IN BOOK]

[July 12, 1920?]

~~Put~~ Ni 191 amp hours—
Washed—rinsed distilled
water dried on whirler—
put in with ~~[illegible]~~ full
Current on ——,
Taken out of #2 Ni bath.
Put in #7 Bath.

Next in Ni same as
above except put in wet
Total amp hours—171
#7 Bath

July 14—

Next 2 Nickels are to be put in
One with full Current on dry
The other full Current on but put in wet
with full Current on

When put into Copper baths both are
to go in dry with full Current on

[ITEM(S) FOUND IN BOOK]

#1 Bath Ni Plate

11-PM July 14, 20

Ni face disc.
Cleaned with lime
Wash in whirler, rinse distilled water.
Put in Electric Cleaner 20 second
Wash in whirler, rinse distilled water.
Put in 8-4 20 seconds
Wash in whirler, rinse distilled water.
Put in Ni Bath dry,
full current on

Noticed blisters about 20 minutes after running in Ni bath.
Taken out ½ hour after started, to try a new set.
second set put in at 12.P.M.

#2 Bath Ni Plate.

11.PM. July 14, 20.

Ni face disc.
Cleaned with lime.
Washed in whirler, rinse distilled water.
Put in Electric Cleaner 20 seconds.
Wash in whirler, rinse distilled water
Put in 8-4 20 seconds
Wash in whirler, rinse distilled water
Put in Ni Bath wet
full current on

Noticed blisters about 20 minutes after running in Ni Bath.
Taken out ½ hour after started, to try a new set.
Second set put in at 12-PM.

[ITEM(S) FOUND IN BOOK]

Ni face disc,
Electric leaner 30 seconds
8-4 — 1 Minute
Put in Ni bath dry, full curr't.

[ITEM(S) FOUND IN BOOK]

#1

July, 15, 20

Of the 2 Nickels now plating put in both dry in Copper bath, With full Current,

Dont hesitate when edge goes in or you will burn them

and not put in too quick as it will carry air bubbles down —

#1 in Bath to #7 Copper Bath
2 " " " #8 " "

~~Fitten~~ Put #7 Screen Liners.

#1 Bath #2 in ~~dry~~ wet July, 15, 20.
When #2 " " present Nickels Come out put in two more — run 2 minutes then put Current on

After running 30 minutes Open circuit for 20 minutes to let bath run without Current —
Then Close circuit & let run 45 or more amp —

What about copper baths
Both in Copper dry, full cur

[ITEM(S) FOUND IN BOOK]

~~One~~ July, 15, 20

Both heated 1/2 min
in Cleaner

1 minute Each in 8/4

Clean, rinse, dry one 70 AMP #1 Bath
+ put other in wet 84 AMP #2 Bath

1 Minute Each without
Current on Then full
Current ~

[ITEM(S) FOUND IN BOOK]

July 16, 20

2 Ni faced Formalex — Considerably Rounded Edges

Put in dry — Let them revolve 2 min then put Current on

Put 75 amperes on —

Wash, rinse dry + put in Copper bath with full Current on

Note when Tress start running out from the Edges

Put on 800 amp —

Both above Electrocleaned 30 sec One minute in 8/4

Test Copper Red

[ITEM(S) FOUND IN BOOK]

Schedule July 20

Started with # 6/66.10 A. 500 cc more H_2SO_4 acid in system

All Coppers go in with full Current on & WET.

They can be dried if necessary before, but not put in until wet.

Nickels same — Can be dried if necessary but put in wet

after 1 Revolution Close Switch

Temp on Copper Bath 117° @ 80°

[ITEM(S) FOUND IN BOOK]

Aug. 16, 20

2 Discards. The Varnish removed
by Benzol, dried & Rubber coated by Fred Cole
Polished on Machine —
Washed in Washer & brushed
with standard brush (Brady hand)
Then rinsed distilled water

Cleaned 15 seconds —
Washed rinsed, Then 1 minute
in 8/4 washed rinsed put
in 6th vat 1 Rev & then
Current put on — 70 amp
hours & stripped,

Be Careful in stripping not
to Mar the Edge —

Have C Examine under
Microscope

Entered in book Eye 45 A,
" 46 A.

[ITEM(S) FOUND IN BOOK]

Aug 19, 20

Telegraph Record Maker

Polish Twice over - wash
& brush,
Clean 15 min then in 8/4
till deep red, wash -

Then put in Nickel bath
4 amperes for 4 hours
Then go to full amperage
Remove from Ni bath
and put in Copper bath
at 4 amp for 3 hours
Then full Current on not
above 14 amp to plate 52 hours

[ITEM(S) FOUND IN BOOK]

#1

6. Revolutions in caffein

Copper disc 8/4 — ~~Zn Pen~~

Then 50 amp hours

Then wash & wheel dry

& put in Copper bath

for 600 amp hours

Then I will peel it if possible

#2

Ni. Pen. in Zn bath